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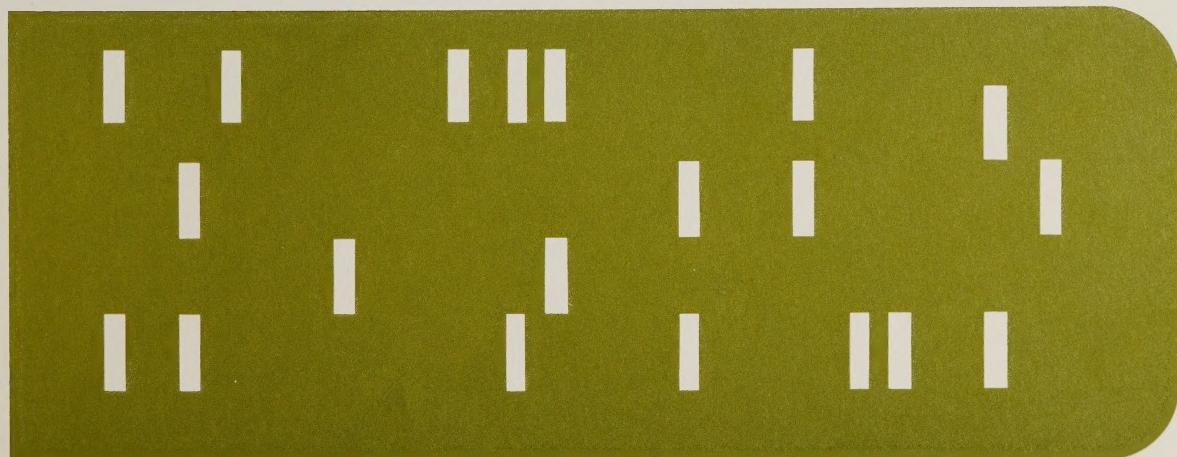
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# DOING BUSINESS IN CANADA



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## CONSTRUCTION AND EQUIPMENT STANDARDS





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DOING BUSINESS IN CANADA

# Construction and Equipment Standards



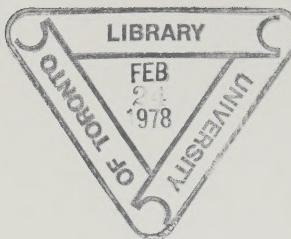
Government  
of Canada

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du Canada

Industry, Trade  
and Commerce

Industrie  
et Commerce

Ottawa, Canada K1A 0H5



## FOREWORD

Every effort has been made to reflect accurately the legislation in force at the time of preparing the material in this text. It should be appreciated, however, that this booklet covers only basic principles. Relevant authorities or solicitors should be consulted for precise and detailed advice.

Other publications available from the Department of Industry, Trade and Commerce and included in the complete series "Doing Business in Canada" are:

- The Business Environment
- Forms of Business Organization in Canada
- Canadian Customs Duties
- Taxation — Income, Business, Property
- Taxation — Sales, Excise, Commodity
- Labour Legislation
- Federal Incentives to Industry
- Patents, Trade Marks, Industrial Designs and Copyrights
- Tariff Preferences for Canadian Goods Abroad

Also available:

Financing Canadian Industries.

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Revised 1977

## INTRODUCTION

Standards in Canada are not set or regulated by any single agency. Federal, provincial, and municipal governments are involved, as well as private agencies such as the Canadian Standards Association.

The Canadian Standards Association is an independent, non-profit organization engaged in writing standards and certifying

products. The standards are published as recommended good practice, and remain voluntary until they receive force of law through appropriate legislation by government authorities. The standards may be purchased from Standards Sales, Canadian Standards Association, 178 Rexdale Boulevard, Rexdale, Ontario M9W 1R3.

## METRIC CONVERSION

The Government of Canada believes that the eventual adoption of the metric system of measurement is inevitable and desirable. A Metric Commission has been established in the federal Department of Industry, Trade and Commerce to co-ordinate and stimulate metric conversion throughout the economy.

The Metric Commission is developing plans to guide the various industry sectors in the process of conversion. Conversion is voluntary, each firm and organization being guided by its own interests and bearing its

own costs.

Gradual changes will be made in the public sector concurrent with industrial and commercial changes. It is hoped that the economy will be predominantly metric by 1980.

Further information concerning metric conversion may be obtained by writing to the Metric Commission Canada, P.O. Box 4000, Ottawa, Ontario K1A 0H5.

## FACTORIES AND COMMERCIAL BUILDINGS

The erection or alteration of a building for use as a factory is normally subject to provincial government control. Drawings and specifications must be submitted to the provincial Department of Labour or equivalent for approval (see Appendix A). Similar requirements may apply to the erection or alteration of a building to be used as a retail outlet, restaurant, office, etc.

The next step is to secure a municipal building permit. Such permits are usually issued only when provincial approval has been obtained. Construction must be carried out in accordance with local building by-laws.

Boilers and pressure vessels must be approved before being installed. Designs must be submitted to the provincial Department of Labour for approval and registration before construction can begin. Inspections are made during construction, installation and initial operations, and annually thereafter. Provincial authorities will usually accept the initial inspection by their counterparts in the area in which the boilers or pressure vessels were constructed.

Many provincial authorities have adopted Code B51, "Code for the Construction and Inspection of Boilers and Pressure Vessels", issued by the Canadian Standards Association. The CSA B51 Code is intended to provide for the safe design, construction, installation, operation and repair of boilers, pressure vessels, and related equipment, as well as to promote uniform requirements among the provinces. It is suggested that the provincial authorities, even though having adopted the B51 Code, should be consulted as to the intent of such adoption, as the Code may have been adopted with exemptions or with additional requirements.

Regulations are also in force in most provinces with regard to elevators and hoists. Equipment is subject to inspection by provincial labour officials.

The Canadian Standards Association has issued CSA Standard B44-75 "Safety Code for Elevators, Dumbwaiters, Escalators and Moving Walks" to meet a desire for uniform legislation throughout the various provinces. The purposes of CSA Standard B44-75 are

to provide reasonable safety for persons using elevators, dumbwaiters, escalators and moving walks by establishing minimum standards for design, installation and maintenance, and to provide a uniform standard for adoption by provincial authorities throughout Canada. It is also intended as a standard reference for the use of architects, consulting engineers, and elevator manufacturers and owners.

The Canadian Standards Association has issued other codes relating to the construction and maintenance of high buildings:

- Z185 — 1975, Safety Code for Personnel Hoists
- Z256 — 1972, Safety Code for Material Hoists
- Z271 — 1974, Safety Code for Powered Platforms.
- Z248 — 1975 Safety Code for Tower Cranes

Z150 — 1974 Safety Code for Mobile Cranes.

Safety codes for manlifts are being prepared.

An employer should forward notice to his provincial Department of Labour when undertaking to occupy a factory. The notice must contain information as to the name of the firm, the location of the plant, the nature of the work, and the amount of motive power to be used.

Premises must be maintained so that they are structurally sound and in a safe condition. Where provincial authorities consider that machinery, construction, etc., is or could be a source of danger to health or safety of an employee or of persons having access to a factory, they can so notify the employer or owner and direct him to take measures to counteract or eliminate the danger.

## BUILDING CODES

Building codes are intended primarily to ensure the structural adequacy and fire safety of buildings and to prevent the development of health hazards.

In the past, Canada's municipalities have been granted authority under appropriate provincial statutes to prepare or adopt building regulations as their local building by-laws. Recently, however, a number of provinces have been developing uniform building standards for application within their respective jurisdictions based on the National Building Code of Canada.

The National Building Code is produced under the auspices of the Associate Committee on the National Building Code of the National Research Council of Canada and is issued in legal form to encourage adoption by jurisdictional authorities. It is an advisory document only, having no legal status unless adopted by a governing authority. The Associate Committee provides this service in the interest of establishing uniform building regulations across Canada.

The National Building Code has received wide acceptance through adoption by local governments and should be applied even more widely in the future as the various provincial governments introduce provincial codes based on the national code.

The National Building Code is under regular revision by committees knowledgeable in all phases of the building industry. Beginning in 1975 the Code will be published at two-year intervals.

New construction must comply with provincial and municipal regulations, and perhaps with other standards. For example, Central Mortgage and Housing Corporation has prescribed the Residential Standards (Canada) as the standard for all buildings financed under the National Housing Act. This document contains the housing requirements from Part 9 of the National Building Code. It also contains requirements, going beyond the scope of the National Building Code, which are considered necessary to regulate residential construction under the National Housing Act.

Another standard of interest to manufacturers of factory built houses is Canadian Standards Association Standard A277-1972, "Procedure for Certification of Factory Built Houses". The CSA also publishes standards for mobile homes and recreational vehicles.

A more recent addition to the National Building Code series is Supplement No. 5 "Building Standards for the Handicapped". This is written in a rather permissive style and is intended to permit the design of any

building for use by the physically handicapped person with emphasis on the wheelchair patient. Designers and building officials of all levels of government are encouraged to consider Supplement No. 5 in the design of buildings used by the public such as libraries, assembly halls and theatres.

Another document of interest is "Farm Building Standards". It contains all requirements for the design and erection of such farm buildings as barns, silos and grain fruit storage sheds.

Most municipalities have zoning by-laws which are intended to protect established areas from unwanted changes in land use and to guide or control the development of new areas. Where such regulations are in existence, building locations must be discussed with municipal officials before a building permit can be obtained. These permits serve a dual purpose. As well as regulating the siting of various buildings, they provide a means of bringing new construction to the attention of the local building inspector responsible for enforcing the municipal by-laws.

Although the National Building Code and the Residential Standards (Canada) are based on well established traditional construction

techniques and materials, provision is made for acceptance of new techniques, materials and building equipment providing they meet the intent of the Code. The building official responsible for administration of local building regulations has to be satisfied that any new system or material will provide the same basic level of safety as those specified in the Code.

For work financed under the National Housing Act, Central Mortgage and Housing Corporation reviews and may accept proposals incorporating new techniques or materials and publishes a list of acceptances under the title "Acceptable Building Materials, Systems and Equipment". Enquiries about the acceptance procedure should be directed to:

Associate Director  
Engineering and Inspections  
Professional Standards and  
Technology Sectors  
Central Mortgage and Housing  
Corporation  
Head Office  
Montreal Road  
Ottawa, Ontario  
K1A 0P7

## BUILDING STANDARDS INDEX

This is a joint publication of the Department of Industry, Trade and Commerce and the Canadian Government Specifications Board. It lists all codes, standards, and specifications published by recognized organizations and/or

permitted in the Canadian construction industry. For further information write to the Construction Branch, Department of Industry, Trade and Commerce, Ottawa K1A 0H5.

## PLUMBING CODES

Provincial plumbing codes and the plumbing codes of major cities are usually based on the Canadian Plumbing Code, which is part of the National Building Code. In most cases they are mandatory, having been adopted by mu-

nicipalities as by-laws.

Where plumbing by-laws have been enacted, fees are charged for each inspection, and approval of the installation must be obtained before the system can be used.

## ELECTRICAL INSTALLATIONS

Electrical installations must conform to the provisions of Canadian Standards Association Standard C22.1, Canadian Electrical Code,

Part 1. This standard with minor modifications has been adopted by all provincial governments and has the force of law.

## ELECTRICAL APPARATUS AND EQUIPMENT

Electrical apparatus and equipment must be "approved" by the province in which it is offered for sale. CSA certified apparatus and equipment is accepted as "approved" by the provincial governments.

In Ontario, for example, anyone selling unapproved electrical equipment is liable to a fine "of not less than \$25.00 and not more than \$500.00 for each offence" on a summary conviction. The Power Corporation Act of Ontario requires that electrical goods be properly listed with CSA, meet CSA standards and bear the CSA monogram. Regulations also prohibit advertising, selling, renting, or transferring ownership or possession where electrical equipment has not been certified by CSA. Other provinces have similar regulations. Usually a dealer buying electrical merchandise will insist that the terms of sale include a warranty that the equipment meets the CSA Standard.

Applications for CSA certification of electrical equipment may be made in person or by writing to the Certification Division, Canadian Standards Association, 178 Rexdale Boulevard, Rexdale, Ontario, M9W 1R3, or to a CSA Regional Office (Montreal, Winnipeg, Edmonton and Vancouver).

United Kingdom manufacturers should

address their communications to BSI/CSA Agency, British Standards Association, Maylands Avenue, Hemel Hempstead, Herts, England; European manufacturers—N.V. KEMA, Utrechtweg 310, Arnhem, The Netherlands; Japanese manufacturers—Japan Machinery and Metals Inspection Institute, 1-21-25 Kinuta, Setagaya-ku, Tokyo, Japan.

An application form will be furnished, and when completed and returned, together with a specified initial deposit (to be applied against the costs of a laboratory investigation, report, certification, etc.), work will be initiated according to the schedule of jobs on hand.

Samples must be delivered as directed, to the specified testing laboratory with all carriage, customs, brokerage and other charges prepaid. The samples will be inspected or tested to determine whether they conform to CSA requirements. Should the final decision be favourable, the applicant will be asked to accept the CSA Follow-up Inspection Service.

This Follow-up Inspection Service, involving an annual fee, is carried out by means of periodic tests or inspection at the factory, by observation of the certified equipment in service, or by tests on samples submitted or purchased in the open market.

## WEIGHING AND MEASURING DEVICES, ELECTRICITY AND GAS METERS

The importation, manufacture, sale, and use in trade of weighing and measuring devices for trade use are controlled in Canada under legislation administered by the Legal, Metrology and Laboratory Services Branch of the Department of Consumer and Corporate Affairs, Ottawa, K1A 0C9. This legislation covers all types of scales, volumetric meters, and electricity and gas meters. Included is ancillary equipment incorporated in devices or in installations such as digital and remote

readouts, transformers, thermometers, and pressure gauges.

Before import, sale and use, prototypes and specifications must be inspected and tested by the Branch. The equipment is either approved and listed, or rejected, as the circumstances warrant. Each individual unit of an approved type is subject to inspection before being first used in trade, and then to periodic inspection during its subsequent use in trade.

**APPENDIX A****PROVINCIAL DEPARTMENTS OF LABOUR  
OR EQUIVALENT****ALBERTA**

Department of Labour  
IBM Building  
10808 - 99 Avenue  
Edmonton, Alberta  
T5K 0G2

**BRITISH COLUMBIA**

Department of Labour  
Parliament Buildings  
Victoria, British Columbia  
V1G 1X4

**MANITOBA**

Department of Labour  
600 Norquay Building  
401 York Avenue  
Winnipeg, Manitoba  
R3C 0P8

**NEW BRUNSWICK**

Department of Labour  
P.O. Box 6000  
Fredericton, New Brunswick  
E3B 5H1

**NEWFOUNDLAND**

Department of Manpower and  
Industrial Relations  
Confederation Building  
St. John's, Newfoundland

**NOVA SCOTIA**

Department of Labour  
P.O. Box 697  
Halifax, Nova Scotia  
B3J 2T8

**ONTARIO**

Ministry of Labour  
400 University Avenue  
Toronto, Ontario  
M7A 1T7

**PRINCE EDWARD ISLAND**

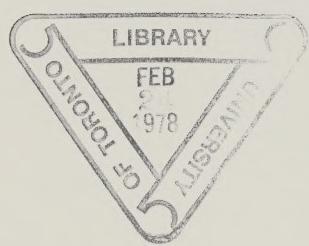
Department of Labour  
P.O. Box 2000  
Charlottetown, Prince Edward Island  
C1A 7N8

**QUEBEC**

Labour and Manpower Department  
Parliament Buildings  
Quebec City, Quebec  
G1R 4Z1

**SASKATCHEWAN**

Department of Labour  
1914 Hamilton Street  
Regina, Saskatchewan  
S4P 3N6



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